

Application No. 10/812,542
Reply under 37 CFR 1.116
December 24, 2007

REMARKS

Status of Application

In the Office Action mailed on November 2, 2007, claims 1-10 and 21-26 were rejected, and claims 27-29 were withdrawn as being directed to a non-elected invention. Applicants respectfully submit that claims 27-29 depend from claim 1-3 respectively, and upon allowance of claims 1-3, claims 27-29 should be rejoined.

Claim Amendments

Claims 23 and 25 have been amended to correct a typographical error, obviating the claim objections in the Office Action. Claims 22 and 25 have been amended to remove the language "other than stabilizers" from the claims.

Rejection Under 35 U.S.C. § 112

The amendment of claim 22 moots the rejection under 35 U.S.C. 112, second paragraph.

Rejection Under 35 U.S.C. § 102

Claims 1-7, 9 and 10 were rejected in the Office Action as allegedly being anticipated under 35 U.S.C. § 102 by U.S. Patent No. 5,556,825 to Shelef et al.

It has long been the law that a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently, in a single prior art reference. See *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 638, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). The instant claims are directed to an exhaust gas treatment catalyst comprising a) a first washcoat layer comprising substantially only at least one refractory metal oxide, b) a second washcoat layer comprising substantially only at least one oxygen storage component and at least one binder therefor or c) a third washcoat layer comprising at least one layer of one or more platinum group metal components supported on a refractory metal oxide support. As discussed in the accompanying executed copy of the Declaration of Dr. Robert Farrauto Under 37 C.F.R. § 1.132, Shelef does not disclose the claimed invention.

Indeed, as pointed out by Dr. Farrauto in the Declaration, Shelef fails to suggest a second washcoat layer on a first washcoat layer comprising substantially only a refractory metal oxide, the second washcoat layer comprising an oxygen storage component and a binder therefor, and a third washcoat deposited on the second washcoat layer, the third washcoat layer comprising a refractory oxide support. The catalyst of the presently claimed invention comprises three distinct washcoats. The Declaration further points out that the process described in Shelef results in the formation of a different catalyst structure defined by the pending claims of the instant application.

The rejection fails to give patentable weight to the term "washcoat", which as demonstrated by the Declaration has a well understood meaning in the art and is defined in the Specification at least at pages 16 and 17 to include a support. Since the third washcoat layer by definition and the language of claim 1 must include a refractory oxide support, Shelef fails to teach or suggest all of the claim limitations in the pending claims.

Furthermore, as noted in the Declaration, there is no disclosure of the limitation of a second washcoat layer containing a binder as recited in claim 1.

Accordingly, since Shelef fails to teach or suggest every limitation of claims 1-7, 9-10 and 21, the rejection should be withdrawn.

As discussed at page 7, lines 15-33, applicants have found that by providing a catalyst with (i) a discrete first, i.e., bottom, layer comprising substantially only at least one refractive metal oxide, and (ii) a discrete second layer overlying the first layer comprising substantially only at least one OSC and at least one binder therefor, and (iii) providing at least one separate catalytic, i.e., a PGM component layer, a catalyst is produced wherein a significant portion of the OSCs are separated from the layers containing the bulk of the PGMs, relative to catalysts that contain OSCs and PGMs together in the same layer adjacent to the carrier and/or in the catalytic layers. As a result, the oxygen storage capacity of the exhaust treatment catalyst of the invention can be adjusted without negatively impacting the catalytic functions of the PGM component-

Application No. 10/812,542
Reply under 37 CFR 1.116
December 24, 2007

containing catalytic layers, such as their hydrocarbon oxidation and light-off activities. In addition, the conversions of carbon monoxide and nitrogen oxides are not negatively unaffected. The catalysts according to embodiments invention are advantageously integrated into a variety of exhaust platforms that have different oxygen storage capacity requirements.

Shelef provides no teaching of applying the substances as different washcoat layers, and thus involves a very different structure than the claimed catalyst. In fact, Shelef teaches away from the present invention by teaching that all of the components should be contained on a single support in the same washcoat layer.

Claims 2-10 and 21-29 depend directly or indirectly from claim 1 and are patentable for the same reasons. For at least these reasons, the rejection of claims 2-10 and 21-29 is respectfully traversed.

Reconsideration of the above-referenced patent application in view of the foregoing amendment is respectfully requested. Correspondence should continue to be directed to Chief Patent Counsel, BASF Catalysts LLC, 100 Campus Drive, Florham Park, New Jersey 07932. If any fees are due, the USPTO is authorized to charge Deposit Account No. 50-3329.

Respectfully submitted,

Dated: December 24, 2007

By: /Scott S. Servilla, Reg. No. 40,806/

Scott S. Servilla, Reg. No. 40,806
Telephone: (732) 815-0404

BASF Catalysts LLC
100 Campus Drive
Florham Park, New Jersey 07932
Tel: (732) 205-6241